

REMARKS/ARGUMENTS

The present amendment is submitted in conjunction with a simultaneously filed Request for Continued Examination and in response to the final Office Action dated October 4, 2005, which set a three-month period for response, making this amendment due by January 4, 2006. A petition for a one-month time extension is also filed herewith making the amendment due February 6, 2006 (Monday).

Claims 11-30 are pending in the application.

In the final Office Action, claims 11-30 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 11-30 stand further rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,408,887 to Yamaoka.

In the present amendment, independent claims 11 and 26 have been amended to address the rejection under Section 112, second paragraph.

To more clearly define the present invention over the cited patent to Yamaoka, claims 11 and 26 were amended to recite that the sleeve flow channels are U-shaped, as shown in Figs. 1 and 2. Amended claims 11 and 26 further define that "the sum of the cross-sections of the flow channels shift toward the sleeve and then toward the screw" AND "wherein a width of the gap 24 is approximately half a height of each said first and second ribs 16 and 20, wherein the heights of said first and second ribs continuously change throughout the transfer region, whereas a sum of the heights remains constant". This feature is disclosed in the original specification on page 6, line 19 through page 7, line 2.

Claim 11 includes the additional feature that "a gap is formed that corresponds to greater than 0.5% of a diameter of said extruder screw". This gap is

vital for the increased processing time of the material to be kneaded and the improved homogenization due to the shear effect. This feature is not disclosed or suggested by the cited art; the Examiner already has conceded that this feature is novel (see final Office Action, Section 6).

Yamaoka discloses a kneading section having a complex configuration, which comprises a plurality of members (column 1, lines 40-42 and column 3, lines 40-44). In contrast, the present invention comprises only a very few members (screw, sleeve) and a stream of the material to be kneaded which is significantly transversal and even. The power consumption of the extruder of the present invention is comparable to that of prior art extruders. The power consumption of the kneader of Yamaoka is much higher due to the discontinuous stream of the material when passing the plurality of fixed and rotating disks forming the described kneading section.

Furthermore, the kneading section of Yamaoka does not form a transfer region, as defined in claim 11 of the present application.

The newly added features of claim 11 described above also distinguish the present invention over the Yamaoka patent, which explicitly refers to a kneading section formed by a plurality of fixed and rotating disks, and whereby "...the projections and recesses (of the disks) are formed so as to reduce the space between each rotary disk and the immediately adjacent fixed disk toward the forward end of the cylinder (see Yamaoka abstract).

The Applicant again must note that Yamaoka provides the practitioner with no teaching or suggestion of modifying the disclosed device by adapting the rib widths to one another, as defined in the amended claims. It is respectfully submitted that

since the prior art does not suggest the desirability of the claimed invention, such art cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01.

Therefore, the Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 103 and reconsideration of the claims as herein amended.

The application in its amended state is believed to be in condition for allowance. However, should the Examiner have any comments or suggestions, or wish to discuss the merits of the application, the undersigned would very much welcome a telephone call in order to expedite placement of the application into condition for allowance.

Respectfully submitted,



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